PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)
	)
KONDO et al.	) Group Art Unit: 1794
	)
Application No: 10/550,005	) Examiner: Victor S. Chang
	)
Filed: September 23, 2005	) Confirmation No.: 5730
	)
For: MICROPOROUS POLYETHYLENE FILM	)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 C.F.R. § 1.132 of Masahiro OHASHI

I, Masahiro OHASHI, do hereby make the following declaration:

1. I am an inventor of the subject matter described in U.S. Application No. 10/550,005 ("the '005 application"), filed September 23, 2005.

2. I have been employed by Asahi Kasei Chemicals Corporation and its predecessor corporations since April 1, 1997, and I am presently an Assistant Manager. During my employment at Asahi Kasei Chemicals Corporation, I have about seven years of experience in the research and development of microporous polyethylene films.

3. My qualifications and professional training are as follows: I have a Master of engineer degree from the Kyoto University in chemistry issued 1997.

4. My general work experience includes preparation of microporous polyethylene films, experiments using microporous polyethylene films, and development of Examples 1-9 and Comparative Examples 1-6 as they relate to Table 1 in the specification.

5. I participated in the development of experiments described in Examples 1-9 and Comparative Examples 1-6. For purposes of this Declaration, these examples were performed under my supervision.

6. I have read and understand the entire disclosure of the '005 application, including claims 1-24. Further, I understand that claims 2, 3, 6, 7 and 9 are not under present consideration.

7. I have read and understand the rejections presented in the Office Action mailed May 12, 2008, as well as the references cited.

8. In order to prove that there is a criticality in a range of about 10 to about 90% of a high density polyethylene copolymer recited in amended claim 1, from the standpoint of the balance of fusing temperature and film rupture temperature, the following experiments identified below were performed under my supervision.

9. The same procedure was repeated in the same manner as in Example 1 of the specification, except that the composition of a blend was changed as shown in Table A below.

Table A

			Additional Experiment 1	Additional Experiment 2	Additional Experiment 3	Additional Experiment 4
Composition	Copolymerized linear high density PE1	MI 0.8, comonomer 0.6%	8	10	15	95
	High density PE3	300000	42	40	35	-
	High density PE5	700000	20	20	20	-
	Ultrahigh molecular weight PE1	2000000	30	30	30	-
	Ultrahigh molecular weight PE3	4500000	-	-	-	5

10. The results of the above additional experiments regarding fusing temperature and film rupture temperature are shown in Table B below in relation to the percentage of copolymerized LHDPE present in the blend, together with the results of Examples 1 to 9 and Comparative Examples 1 and 2 of the specification.

Table B

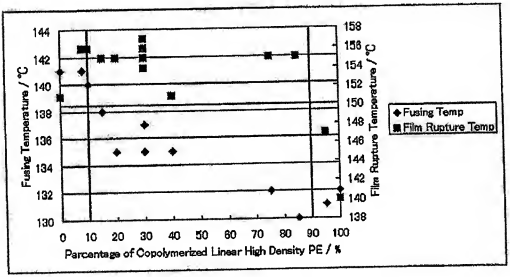
	Percentage of copolymerized linear high density PE (LHDPE)	Fusing temperature (°C)	Film rupture temperature (°C)
Comparative Example 1	0	141	151
Example 3	20	135	155
Example 1	30	137	157
Example 2	30	137	155
Example 5	30	135	154
Example 8	30	137	156
Example 9	30	137	156
Example 4	40	135	151
Example 6	75	132	155
Example 7	85	130	155
Comparative Example 2	100	132	140
Additional Experiment 1	8	141	156
Additional Experiment 2	10	140	156
Additional Experiment 3	15	138	155
Additional Experiment 4	95	131	147

11. The data provided in Table B show that when the copolymerized LHDPE content is less than 10% (Additional Experiment 1) the fusing temperature unexpectedly increases above 140 °C. The data also shows that when copolymerized LHDPE

content exceeds 90% (Additional Experiment 4), the film rupture temperature unexpectedly decreases below 150 °C.

12. The data of Table B are graphically illustrated in Fig. A below.

Fig. A



13. Fig. A clearly shows the presence of two inflection points when the fusing and film rupture temperatures unexpectedly change. For example, at about 10% copolymerized LHDPE the fusing temperature favorably and unexpectedly falls below 140 °C while the film rupture temperature is favorably maintained above 150 °C. Thus, about 10% copolymerized LHDPE represents the first inflection point.

14. The second inflection point occurs at about 90% copolymerized LHDPE when the film rupture temperature disadvantageously and unexpectedly falls well below 150 °C while the fusing temperature remains favorably below 140 °C.

15. Generally speaking, high fusing temperatures and low film rupture temperatures are highly undesirable in film blends. Thus, the goal is to obtain sufficient balance in both properties to produce an excellent product.

16. The data presented above was surprising and unexpected because of the sudden, significant drops in fusing temperatures and film rupture temperatures for copolymerized LHDPE contents above about 10% and above about 90%, respectively. However, the data unexpectedly showed good balance of both properties in the range of about 10% to about 90% copolymerized LHDPE. To me, this data indicates the criticality of a blend comprising a copolymerized LHDPE in the range of about 10% to about 90% for obtaining overall good balance of both fusing and film rupture temperatures.

17. I further declare that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true, and understand that willful false statements and the like are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code, and may jeopardize the validity of the application or any patent issuing thereon.

Dated: 12th day of September, 2008 By: Masahiro Ohashi
Masahiro OHASHI